

REMARKS

The rejection of Claim 14 under 35 USC § 112, ¶ 2 has been addressed by changing its dependency to allowable Claim 12. In this connection, the allowability of Claims 2-12 is noted without further comment.

The rejection of Claims 1 and 13-23 as being unpatentable over JP '976 in view of Kaneko et al. under 35 USC § 103(a) is traversed, and reconsideration is requested.

Applicants have previously addressed and distinguished the JP '976 document. That document discloses a magnet position detector 8 which detects a magnetic pole position of a permanent-magnet synchronous motor 1 and a judgment circuit 20 for judging a failure of the magnetic pole position detector 8 based on a current detected by a current detector 12. There is not, however, any suggestion of a judgment circuit for judging a failure of the field pole position estimating unit, i.e., a fault in the estimated magnetic pole position of the AC motor.

Likewise, the newly cited Kaneko et al. patent, which is assigned to Hitachi, Ltd., the assignee of the present application also does not disclose such a judgment circuit or means for fault detecting. It certainly discloses a field pole position estimating unit 8a (Fig. 1). With reference to column 6, lines 26-35, the field pole position estimating unit 8a estimates the magnetic pole position of the synchronous motor 1 by applying AC current in the d-axis direction when the motor 1 stops, and detects a q-axis current for detecting the magnetic pole position of the synchronous motor 1.

Neither JP '976 nor Kaneko et al. teach or suggest a lower cost but effective way to detect magnetic pole positions by using a position estimating means 30 for estimating the magnetic pole position of the permanent-magnet synchronous motor 1 and a fault detecting means for detecting a fault in the estimated magnetic pole position of an AC motor.

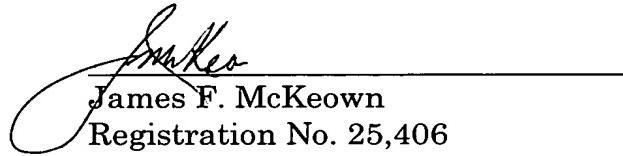
Accordingly, early and favorable action on all the claims is earnestly solicited.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket # 056205.50302).

Respectfully submitted,

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